D600 Series

Security Systems

EN

Installation Guide

Keypads

BOSCH

1.0 Description

The D600 Series (which includes the D621/D621W/D621B, D623/D623W/D623B, and D625/D625W/D625B) Keypads are low-profile, surface-mount, units for use with Bosch Bosch Security Systems D6412 and D4412 Control Panels. The D600 Series Keypads are illuminated and have an armed status indicator, three programmable emergency keys, and a built-in sounder that emits several distinct tones.

The D623/D623W/D623B and D625/D625W/D625B can be used for local programming of a compatible control panel.

The control panel supplies all power and data requirements for keypads using a simple four-wire connection. Depending on the control panel, a maximum of eight keypads can be installed in one system.

Figure 1: D621/D621W/D621B

D621

D621W

D621B

Figure 2: D623/D623W/D623B

D623

D623W

D623B

Figure 3: D625/D625W/D625B

D625

D625W

D625B

2.0 Displays

The D621/D621W/D621B Keypad uses light-emitting diodes (LEDs) to indicate system status. The D623/D623W/D623B has a backlit liquid crystal display (LCD) and the D625/D625W/D625B has a vacuum fluorescent display.

The D623/D623W/D623B's backlighting and the D625/D625W/D625B's brightness are adjustable.

The D623/D623W/D623B and D625/D625W/D625B Keypads use a two-line by 16-character display to show system status and programming prompts that assist the user and installer in entering data.

3.0 Keys

The D600 Series Keypads have a [Cmd] key, [*] key, three emergency keys (labeled A, B, and C), and numeric keys from 0 to 9. These keys are used to enter functions and personal passcodes into the panel.

The D600 Series also have the following arming keys:

- [All On] - turns the system All On
- [Part On] - turns the system Part On
- [No Delay] - eliminates the Entry/Exit Delay timers and arms the system immediately
- [Bypass] - bypasses points when arming the system

For more information on the keypad keys, see the *Text Command Center User Guide* (P/N: 46841) or the *D621/D621W/D621B Keypad User Guide* (P/N: 46840).

4.0 Response Tones

The keypads contain a sounder that is used to annunciate several system conditions. The sounder volume is adjustable.

5.0 Installing the Keypad

1. Select a mounting location.

> Do not mount any of the D600 Series in areas of extreme cold (such as unheated building, refrigerated areas, outdoors, or areas where the temperature can drop below 0°C (+32°F), or areas of extreme heat [+50°C (+122°F)]. Do not mount any of the D600 Series in locations that are exposed to direct sunlight. This makes the display less visible and can damage keypad components

You can mount the keypads on a flat wall or on the following Bosch Security Systems accessories:

> The D54B and D54C mounting kits will not work with the D621B, D623B or D625B Keypads.

- D54B Brass Flush Mount Kit
- D54C Chrome Flush Mount Kit
- D55 Keypad Desk Stand
- D56 Keypad Conduit Box

2. Route the keypad wire.

   Route the wire to the keypad location. See *Table 1* for information about the maximum length of keypad cables. Route the data wire away from electrical, telephone, and other data wiring.

3. Splice the connector to the wires.

   The four-wire cable connects to the panel. Use solder to splice the connectors to the cable. Be sure to insulate all exposed splices with electrical tape to prevent shorting to one another.

4. Remove the front cover.

   Remove the front cover from the enclosure base. Use a small flat-blade screwdriver to gently push the two bottom cover tabs back. As you push back the tabs, lift the front cover away from the base to remove the cover. See *Figure 4*.

5. Connect the keypad.

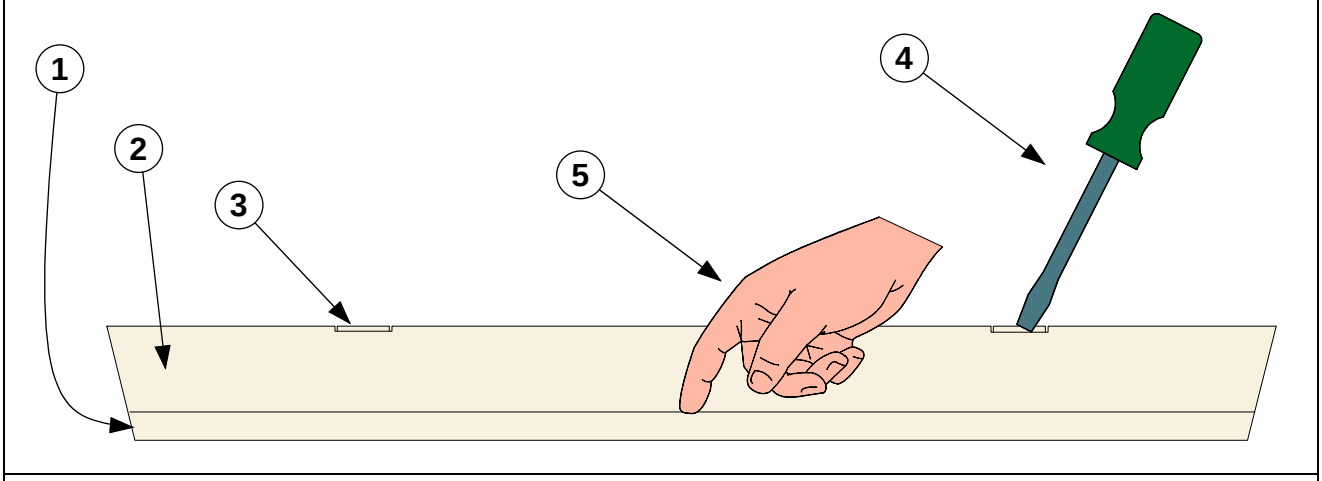
   Plug the connector into the keypad.

6. Mount the enclosure base

   Push any excess keypad wire back into the wall or gang box and place the enclosure base on the wall in the desired location. Use a center punch or a pencil to mark the locations of the mounting holes.

   If desired, you can mount the enclosure base to a recessed single-gang wall box. Secure the enclosure base to the wall or gang box.

Figure 4: Removing the front cover



1 - Front cover
2 - Keypad base
3 - Tab
4 - Push back tabs with flat-bladed screwdriver
5 - Pry apart front cover from keypad base

6.0 Wiring the keypad

Before making or breaking any connections, remove all power to the system (AC and standby battery). Failure to do so may result in personal injury and/or damage to the equipment.

Refer to *Table 1* for SDI bus wiring length requirements.

Table 1: Keypad wire lengths

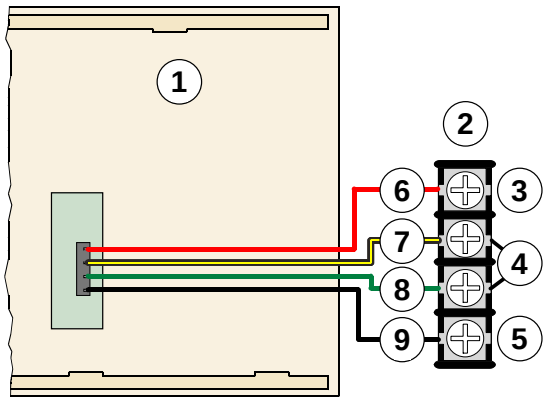
Connection	0.8 mm (#22 AWG)	1.2 mm (#18 AWG)
control panel to D621/D621W/D621B/D623/ D623W/D623B	305 m (1000 ft)	310 m (2000 ft)
control panel to D625/D625W/D625B*	69 m (225 ft)	183 m (600 ft)
control panel to D600 Series using an External Power Supply	305 m (1000 ft)	310 m (2000 ft)

* = Due to higher current requirements for the D625/D625W/D625B Vacuum Fluorescent Keypad, the wire lengths shown must be used when wiring from the control panel.

Wire length may be restricted by panel limitations. Refer to the control panel's installation instructions for more information.

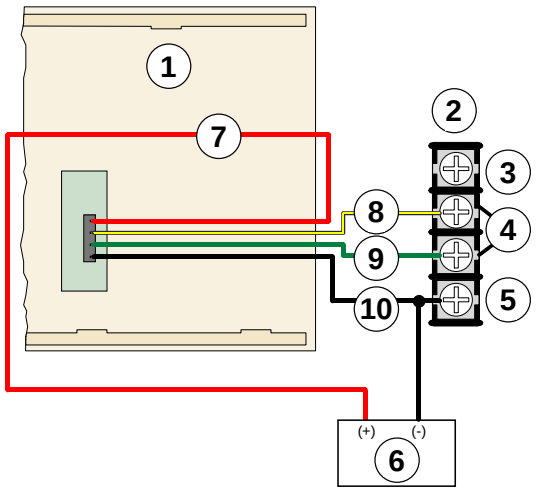
Figure 5 shows a typical installation using one keypad. Use parallel connections for additional keypads. Refer to the control panel's installation guide for more information.

Figure 5: Wiring the keypad to the control panel



1 - Back of keypad
2 - Control panel terminals
3 - AUX Power (+)
4 - Data
5 - Common
6 - Red
7 - Yellow
8 - Green
9 - Black

Figure 6: External power for keypads

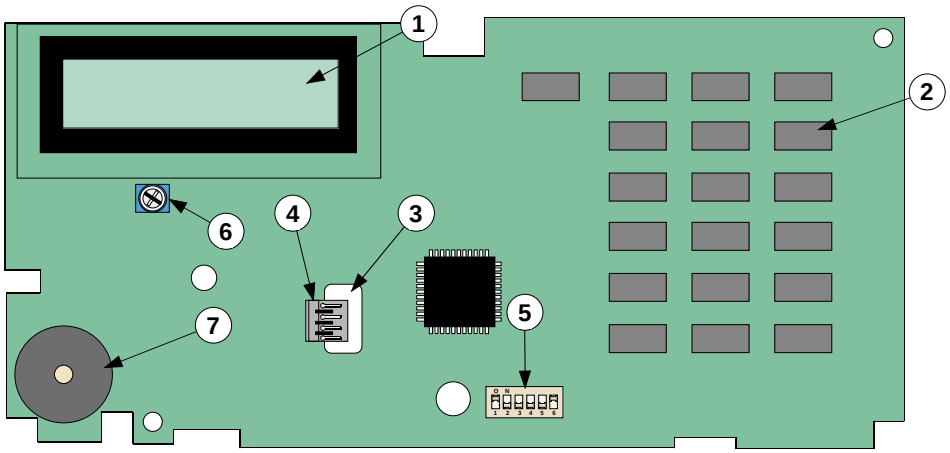


1 - Back of keypad	*6 - External 12 VDC power supply*
2 - Control panel terminals	*7 - Red*
3 - AUX Power (+)	*8 - Yellow*
4 - Data	*9 - Green*
5 - Common	*10 - Black*

7.0 Assigning a device address

Each time you change the address switches, you must cycle the power to the keypad (turn the power off and then on) for the address change to take effect.

Figure 7: Inside view of keypad



1 - LCD display (D623/D623W/D623B), LED display (D621/D621W/D621B), or vacuum florescent display (D625/D625WD625B)	*4 - Data wire connector*
2 - Keypad	*5 - 6-position DIP switch*
3 - Wire opening	*6 - Backlight brightness potentiometer (D623, D623W and D623B only)*
	7 - Speaker

Figure 8: 6-position DIP switch (Module address 2 is shown)

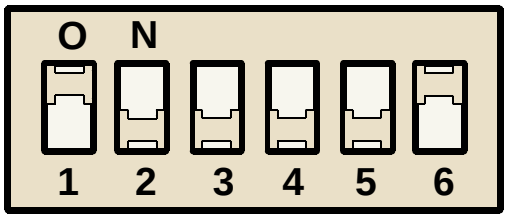


Table 2: Keypad address assignments and DIP switch settings

	DIP Switch Settings					
DIP Switches	**S1**	**S2**	**S3**	**S4**	**S5**	**S6**
Module Address	**1**	**2**	**4**	**8**	**16**	**MODE**
0*	OFF	OFF	OFF	OFF	OFF	OFF
1	ON	OFF	OFF	OFF	OFF	ON
2	OFF	ON	OFF	OFF	OFF	ON
3	ON	ON	OFF	OFF	OFF	ON
4	OFF	OFF	ON	OFF	OFF	ON
5	ON	OFF	ON	OFF	OFF	ON
6	OFF	ON	ON	OFF	OFF	ON
7	ON	ON	ON	OFF	OFF	ON
8	OFF	OFF	OFF	ON	OFF	ON
9	ON	OFF	OFF	ON	OFF	ON
10	OFF	ON	OFF	ON	OFF	ON
11	ON	ON	OFF	ON	OFF	ON
12	OFF	OFF	ON	ON	OFF	ON
13	ON	OFF	ON	ON	OFF	ON
14	OFF	ON	ON	ON	OFF	ON
15	ON	ON	ON	ON	OFF	ON
16	OFF	OFF	OFF	OFF	ON	ON

* Address 0 is reserved for the Installer's keypad. This keypad is not intended for permanent installation. See the control panel's installation instructions for more details on the Installer's keypad.

Table 2: Keypad address assignments and DIP switch settings (continued)

	DIP Switch Settings					
DIP Switches	**S1**	**S2**	**S3**	**S4**	**S5**	**S6**
Module Address	**1**	**2**	**4**	**8**	**16**	**MODE**
17	ON	OFF	OFF	OFF	ON	ON
18	OFF	ON	OFF	OFF	ON	ON
19	ON	ON	OFF	OFF	ON	ON
20	OFF	OFF	ON	OFF	ON	ON
21	ON	OFF	ON	OFF	ON	ON
22	OFF	ON	ON	OFF	ON	ON
23	ON	ON	ON	OFF	ON	ON
24	OFF	OFF	OFF	ON	ON	ON
25	ON	OFF	OFF	ON	ON	ON
26	OFF	ON	OFF	ON	ON	ON
27	ON	ON	OFF	ON	ON	ON
28	OFF	OFF	ON	ON	ON	ON
29	ON	OFF	ON	ON	ON	ON
30	OFF	ON	ON	ON	ON	ON
31	ON	ON	ON	ON	ON	ON
32	OFF	OFF	OFF	OFF	OFF	ON

8.0 Completing the Installation

1. Replace the front cover.

   Align the top two tabs of the enclosure cover with the top two tab slots in the enclosure base. Slide the top of the cover into the base. Gently push the bottom of the cover down on the base until it snaps into place.

2. Adjust the keys.

   Push each key on the keypad towards the top of the enclosure to ensure proper mating with the openings in the top cover.

3. Restore power to the system.

   Reconnect both AC and standby battery power to the system.

4. Test the system.

   If used for fire applications, test per NFPA 72.

9.0 Specifications

Table 3: D600 Series Specifications

Operating Voltage	Nominal 12 VDC supplied by control panel's auxiliary power supply		
Current Requirements	D621/ D621W/ D621B	Maximum	115 mA
		Normal	35 mA
		Standby	35 mA
	D623/ D623W D623B	Maximum	100 mA
		Normal	100 mA
		Standby	100 mA
	D625/ D625W D625B	Maximum	270 mA
		Normal	270 mA
		Standby	270 mA
Enclosure Dimensions (H x W x D)	11.6 cm x 20.7 cm x 2.1 cm (4.56 in. x 8.15 in. x 0.816 in.)		
Color	Off white (D621, D623, D625) White (D621W, D623W, D625W) White/Stone Grey (D621B, D623B, D625B)		
Operating Temperature	0°C to +50°C (+32°F to +122°F)		
Non-Condensing Relative Humidity	5% to 85% at +30°C (+86°F)		
Keypad Wiring	4-wire cable supplies data, common and positive voltage		
Display	D621/ D621W/ D621B	LED	
	D623/ D623W/ D623B	2-line, 16-character LCD. Adjustable backlighting.	
	D625/ D625W/ D625B	Vacuum-fluorescent 2-line, 16-character display. Adjustable brightness.	
Control Panel Compatibility	D6412 and D4412 Control Panels		

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